



Cat[®] 793

Mining Truck

The Cat[®] 793 Mining Truck is a popular industry workhorse that is the ideal choice for a wide variety of applications. It outperforms competitive trucks in its size class – burning less fuel in the process. Next generation features take the 793 to a new level. The operator sits in a state-of-the-art environment designed for efficiency and equipped with features that increase comfort, automate functions, provide real-time information and boost confidence. The 793 also delivers significant improvements in serviceability and reliability, enhanced connectivity and easier technology integration – including autonomous haulage.

Outperforms Competitive Models – Every Load and Every Cycle

- **Over 10% More Fuel Efficient** – More productivity, lower fuel consumption and industry-leading power train efficiency.
- **Up to 10% Faster Cycle Times** – Travel at a class-leading speed on 10% grade with a top speed of 60 kph/37 mph.
- **Up to 6% Greater Payload** – Highest payload for rated machine weight, plus additional 3-tonne (3.3-ton) reduction with HP Body.

Move More With Less Fuel

- The APECS transmission provides more continuous torque and rimpull to the ground, allowing for higher gear use on grade which delivers fuel economy and faster cycle times.
- Larger tire options allow for more speed in long-haul applications.
- Zero fuel burn during retarding.

Productivity Boosting Cab

- The cab is quieter and offers automated temperature control and cab filtration for a safer and more comfortable environment.
- With enhanced Automatic Retarder Control (ARC), the truck sets a retarding speed based on grade, payload and brake oil temperature by automatically sensing the grade and measuring the payload to determine the performance level of retarding. This feature allows operators to run 3 to 6% higher speeds on average during retarding.
- Speed Coaching provides real time feedback to maximize productivity and efficiency.
- Payload Monitoring System has double the accuracy of the previous version.
- The optional Auto Hoist feature automatically raises the body and controls engine speed, minimizing cycle times.

Cutting-Edge Connectivity and Technology

- Fast ethernet connectivity and port with 250 channels (10 Mbps @ 1 Hz)
- More powerful controllers/ECMs
- Integrated technology
- Real time decision making
- Troubleshoot maintenance issues, predict, and prevent machine failures
- Current and future technology solution

Cat C175-16 Engine Has More Power, More Efficiency and Lower Costs

- Fuel optimized engine for less regulated countries or optional engine that meets U.S. EPA Tier 4 Final and EU Stage V emission standards.
- Engines have selectable power ratings to adapt to changes in production targets and to work smoothly in mixed fleets.
- This engine has more than 21 million hours of proven operation and is capable of burning over 1.2 million gallons (4.5 million liters) of fuel before overhaul.

More Safety Built-In

- Features such as Enhanced Traction Control, Dynamic Stability Control, Anti-lock Brake System, Machine Speed Limiting and Cruise Control improve machine responsiveness and controllability while improving cycle times.
- Fatigue and distraction alerts are sent to the operator from the Driver Safety System.
- A 360 Surround View camera system gives the operator greater visibility to the ground around the truck. In addition, the standard Cat MineStar[™] Detect Object Detection system combines radar and camera systems to warn operators about hazards within the immediate vicinity.

Gain an Edge With MineStar[™] Solutions

Whether you need a few semi-autonomous functions or full autonomy, the MineStar suite of products improves overall safety, efficiency, and productivity of your operation.

- Fleet Management
- Driver Safety System
- Equipment Care Advisor
- Health Office
- Object Detection
- Proximity Awareness
- Health Equipment Insights
- Command

Over 30% Productivity Boost with Autonomy

Up to 11% better fuel efficiency compared to staffed trucks.

- Cat MineStar Command for hauling is a fully integrated factory offering
- 500+ autonomous trucks in service
- Nearly 5 billion tonnes hauled by trucks equipped with Command
- Near continuous utilization
- 35% increase in useful tire life



Cat® 793 Mining Truck

Standard and Optional Equipment

Standard and optional equipment may vary. Consult your Cat dealer for details.

	Standard	Optional		Standard	Optional
ELECTRICAL			OPERATOR ENVIRONMENT (continued)		
Alarm, Back-up	✓		Dome Courtesy Light and Map Lights	✓	
Brushless Alternator, 260 ampere	✓		Electric Powered Window, Right Side		✓
Batteries, 210-amp hour, low maintenance, 12-volt (4)	✓		Interface, Third Party		✓
Converter, 12-volt electrical	✓		Entertainment radio ready:	✓	
Electrical System, 24-volt	✓		– Speakers		
Emergency Engine Shutdown at front bumper and in-cab	✓		– Radio mounting provisions and 12V power supply and Wiring Harness		
Jump start Receptacle		✓	Fire suppression ready	✓	
Lighting System LED:			Floor mat, multi-piece and replaceable	✓	
– Back-up and Hazard Lights	✓		Delayed engine shutdown	✓	
– Directional Signals (front and rear)	✓		Gauge/Indicators		
– Front Stair Access/Service Deck	✓		– Engine system, brake and transmission fault indicators	✓	
– Stop/Tail Lights	✓		– Electric Hour Meter	✓	
– Engine Compartment	✓		– Speedometer	✓	
– VIMS™, Blue Light	✓		– Tachometer	✓	
– Headlights, and fog lights	✓		Interactive touchscreen vehicle information display:		
– Brake and retarder light status ready	✓		– Day/night mode	✓	
Additional Lighting		✓	– Action alarm	✓	
CAT® TECHNOLOGY PRODUCTS			– Quad gauge display	✓	
Integrated Object Detection System	✓		Gauge Panel:		
Product Link™ Elite	✓		– Transmission Fluid Temperature	✓	
Remote Flash	✓		– Brake Oil Temperature	✓	
Remote Troubleshoot	✓		– Critical oil and Coolant Temperature	✓	
TPMS2 Payload Monitoring	✓		– Fuel Level (and Diesel Exhaust Fluid [DEF], if applicable)	✓	
Electronic Operation and Maintenance	✓		– Engine system, brake and transmission fault indicators	✓	
Manual	✓		– Operator selectable max. machine speed by rotary dial	✓	
Cyber Security	✓		Heater/Defroster	✓	
Road Analysis Control (RAC)	✓		Hoist, Body Control (electric)	✓	
Command-Ready Option		✓	Horn	✓	
Vital Information Management System (VIMS)	✓		Horn for use in workshop		✓
OPERATOR ENVIRONMENT			Heated Mirrors, Right and Left	✓	
Modular hydraulic powered HVAC with automatic temperature control	✓		Mirrors Deluxe		✓
Accessory mounting provisions	✓		Mirrors, Heated, Wide Body		✓
12V auxiliary power connection	✓		Retractable Front Sun Visor		✓
5V USB charging port			Rollover Protective Structure (ROPS) Cab, Insulated/Sound Suppressed	✓	
Brake Wear Indicator Gauge		✓	Seat, Operator, Air Suspension and Ventilation	✓	
Cabin Filtration System		✓	Seatbelt, Operator, Three Points, Retractable	✓	
Cat Next Gen Air Suspension Trainer Seat		✓	Seatbelt, Trainer, Two Points, Retractable	✓	
Cat Next Gen Heated Operator Seat		✓	Stairway and Walkway Access, 600 mm (24 in)	✓	
Coat Hook	✓		Steering Wheel, Tilt, Padded, Telescopic	✓	
Cruise Control		✓	Storage locations for operator gear	✓	
Camera, 360 Surround View		✓	Tinted Glass	✓	
Operator Coaching		✓	Tire shield, air deflector		✓
AutoHoist		✓	Transmission Gear Indicator	✓	
Cup Holder	✓		VIMS Message Center with Advisor	✓	
Diagnostic Connection and Service Port	✓				
Driver Safety System Mounting		✓			

(continued on next page)

Not all features are available in all regions. Please check with your local Cat dealer for specific offering availability in your area.

For additional information and additional regional offerings, refer to the Technical Specifications brochure available at www.cat.com or your Cat dealer.

Standard and Optional Equipment (continued)

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	Standard	Optional		Standard	Optional
OPERATOR ENVIRONMENT (continued)			OTHER EQUIPMENT		
Window, Operator, Electric Powered	✓		Automatic Lubrication System, auto shutoff	✓	
Windshield, Wiper Intermittent Control and Washer	✓		Aux "Buddy" Dumping Quick Connect	✓	
Self-filling to windshield washer fluid from AC condensate	✓		Aux Steering Quick Connect (towing)	✓	
POWER TRAIN			Battery box, rubber lined	✓	
Cat C175-16 Diesel Engine:			Body Heat		✓
– Air Cleaner with Precleaner (4)	✓		Center Tow Bumper Attachment		✓
– Air-to-Air Aftercooler (ATAAC)	✓		Driveline Guard	✓	
– Automatic Starter Protection	✓		Hub Odometer (km and miles)		✓
– Multi-Point Oil Pressure Sensing	✓		Electric Starting System	✓	
– Turbocharging (4)/Aftercooled	✓		Air Starting System		✓
– Self cleaning oil filter	✓		Engine Coolant and Oil Heater for Cold Weather Starts		✓
– Centrifugal oil filter	✓		Engine Delay Shutdown Timer	✓	
Braking system:			Extended Life Wheel Stations		✓
– Automatic Retarder Control, Adjustable	✓		External Digital Payload Display		✓
– Brake Release Motor (towing)	✓		Fast Fill Service Center		✓
– Engine Overspeed Protection	✓		Fast Fill Fuel System	✓	
– Extended Life Brake Disc Material	✓		Fuel Filter with Water Separator	✓	
– Oil-cooled, Multi-disc (front and rear) – Service, Retarding, Parking, Secondary	✓		Fuel Tank (4920 L/1,300 gal)		✓
– Park Brake Integrated with Gear Selector	✓		Ground Level Battery Lockout	✓	
– Secondary, Emergency, spring applied with pressure release	✓		Ground Level Engine Shut-down	✓	
– Anti-lock Braking System (ABS) and Dynamic Stability Control (DSC)		✓	Ground Level Engine Start Lockout	✓	
TRANSMISSION			Ground Level lockouts for transmission, battery and engine	✓	
6-speed, Automatic Powershift with APECS controls	✓		Ground Level VIMS Data Port	✓	
Body-up Reverse Neutralizer	✓		Hi-speed Crankcase Oil Change	✓	
Body-up Shift Inhibitor	✓		Hydraulic Filters, 1,000 hour	✓	
Controlled Throttle Shifting	✓		Tank Mud Guards		✓
Directional Shift Management	✓		Payload digital display		✓
Downshift/Reverse Shift Inhibitor	✓		Portable Fire Extinguisher and mounting		✓
Lock-up Torque Converter	✓		Rim Guard		✓
Neutral Coast Inhibitor	✓		Rims (813 mm/32 in)		✓
Neutral Start Switch	✓		Reservoirs (3 separate): Brake/Hoist, Steering/Fan, Transmission/Converter	✓	
Programmable Top Speed	✓		Reflectors		✓
Pre-lubrication/Engine	✓		Rock Ejectors	✓	
High altitude torque converter		✓	Service Points, Ground Level	✓	
Rear Axle Continuous Lubrication/Filtration	✓		Sight Level Gauges for Hydraulic/Engine Oil/Torque Converter/Differential	✓	
Additional Retarding for Downhill Hauls		✓	Scheduled Oil Sampling (S-O-S SM) Ports	✓	
COOLING			Supplemental Steering (automatic)	✓	
Extended Life Coolant to –35° C (–30° F)	✓		Tie Down Eyes	✓	
Mesabi flexible core radiator	✓		SL-V Grease Injectors	✓	
Antifreeze/coolant protects to –50° C (–58° F)		✓	Tow Hooks (front)/Tow Pin (rear)	✓	
			Traction Control System	✓	
			Vandalism Protection Locks	✓	
			Primary access anti-slip high visibility demarcations	✓	
			Walkway and Handrail for Rear Cab Access		✓
			Wheel Chocks		✓

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Technical Specifications

Engine		
Engine Model	Cat C175-16	
Gross Power – SAE J1995:2014	1976 kW	2,650 hp
Net Power – SAE J1349:2011	1886 kW	2,529 hp
Rated Speed	1,750 rpm	
Emissions Rating	Fuel Optimized	
Bore	175 mm	6.9 in
Stroke	220 mm	8.7 in
Displacement	85 L	5,187 in ³
<ul style="list-style-type: none"> • Net Power advertised is the power available at the flywheel when the engine is equipped with air intake system, exhaust system, and alternator. • U.S. EPA Tier 4 Final/EU Stage V available for applicable markets. 		

Weights – Approximate		
Rated Gross Machine Weight (RGMW)		
Standard Wheel Stations	386 008 kg	851,000 lb
Extended Life Wheel Stations	404 000 kg	890,668 lb
Chassis Weight (CW)		
Standard Wheel Stations	126 410 kg	278,863 lb
Extended Life Wheel Stations	133 854 kg	295,098 lb
Body Weight (BW)	30 151 kg	66,471 lb
Nominal Rated Payload (NRP)		
Standard Wheel Stations	229 tonnes	252 tons
Extended Life Wheel Stations	240 tonnes	265 tons
<ul style="list-style-type: none"> • Consult your tire manufacturer for maximum tire load. • Chassis weight with full fuel and fluids, standard and mandatory attachments, hoist, body mounting group, rims, and tires. 		

Weight Distributions – Approximate	
Front Axle – Empty	51%
Rear Axle – Empty	49%
Front Axle – Loaded	33%
Rear Axle – Loaded	67%
<ul style="list-style-type: none"> • Weight distributions optimized with Cat body. 	

Final Drives	
Double reduction, planetary with full floating axles.	
Differential Ratio	1.8:1
Planetary Ratio	16:1
Total Reduction Ratio	28.8

Tires and Rims	
40.00 R57	
46/90 R57	
50/80 R57	
737 mm (29 in) Standard rims, 813 mm (32 in) Optional rims	
<ul style="list-style-type: none"> • Quick Change Rims optional • Extended life wheel stations optional. • Caterpillar recommends the customer evaluate all job conditions and consult tire manufacturer for proper tire selection and TKPH (TMPH) capabilities. 	

Braking System		
Service Brakes: Four-Corner, Wet Disc, Oil Cooled, Hydraulically Actuated		
Front Wet Disc Brake Surface Area	89 727 cm ²	13,907 in ²
Rear Wet Disc Brake Surface Area	134 590 cm ²	20,861 in ²
Standards (Service and Secondary)	ISO 3450:2011	
Parking Brake: Four-corner, Multi-disk, Spring applied, Hydraulically Released		

Capacity – HP Body – 100% Fill Factor		
Struck	112.6-151 m ³	147-197.5 yd ³
Heaped (SAE 2:1)	162-190 m ³	212-249 yd ²
<ul style="list-style-type: none"> • Consult your local Cat dealer for body recommendations. 		

Body Hoists	
Twin, two-stage hydraulic cylinders with snubbing valve	
Body Raise Time – High Idle	22 Seconds
Body Lower Time – Float	23 Seconds
Body Power Down – High Idle	20.7 Seconds

Suspension		
Self-contained nitrogen/oil cylinders, pin-to-pin mounting, top and bottom double shear clevis attachments		
Effective Cylinder Stroke – Front	317 mm	12.48 in
Effective Cylinder Stroke – Rear	165 mm	6.50 in
Rear Axle Oscillation	± 4.9 degrees	

Service Refill Capacities		
Fuel Tank	2839 L	750 gal
Fuel Tank (Optional)	4922 L	1,300 gal
Diesel Exhaust Fluid (DEF) Tank	235 L	62 gal
Cooling System	1074 L	284 gal
Crankcase	312 L	82 gal
Front Wheels, Each	30 L	8 gal
Differential and Final Drives	984 L	260 gal
Steering System (Includes Tank)	290 L	77 gal
Brake/Hoist System (Includes Tank)	1315 L	347 gal
Torque Converter Sump	102 L	27 gal
Torque Converter/Transmission System (Includes Sump)	209 L	55 gal

Cab	
<ul style="list-style-type: none"> • Ambient capabilities down to –30° C (–22° F) for heater/defroster and up to 50° C (122° F) for air conditioning • The dynamic operator sound pressure level is 74 dB(A) when measured according to ISO 6396:2008. • ROPS meets ISO 3471:2008 for Operator and ISO 13459:2012 for Trainer • FOPS (Falling Objects Protective Structure) meets ISO 3449:2005 Level II for Operator and ISO 13459:2012 Level II for Trainer 	

Steering	
Steer Angle	36 degrees
Turning Diameter (ISO 7457:1997)	28 m 93 ft
Steering Standards	ISO 5010:2019

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at www.cat.com

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